

Application No. 10/038,223  
 Docket No. 17MY-7138  
 Amendment dated November 20, 2003  
 Reply to Office Action of August 20, 2003

### Amendments to the Specification:

Please replace paragraph [0025] with the following amended paragraph:

[0025] In an investigation leading to this invention, seven alloys were prepared having the compositions (in weight percent) and average ASTM grain size ("GS") set forth in Table 3 below.

TABLE 3

	C1	C2	C3	C4	C5	C6	C7
Cr	14.82	14.43	14.66	14.62	14.27	14.60	14.42
Ni	6.57	6.38	6.49	6.48	6.21	6.42	6.39
Cu	1.50	1.41	-	1.46	1.42	1.37	1.43
Mo	0.75	0.63	0.75	0.89	0.78	0.80	0.65
C	0.025	0.033	0.031	0.035	0.023	0.023	0.036
Nb	0.53	0.33	0.50	0.42	0.64	0.52	0.38
Nb/C	21.2	10.0	16.1	12.0	27.8	22.6	10.6
Mn	0.41	0.67	0.55	0.48	0.72	0.32	0.68
Si	0.42	0.42	0.49	0.40	0.28	0.55	0.44
V	-	0.05	-	0.08	0.02	0.04	0.03
N	-	0.010	0.030	0.022	0.059	0.17	0.13
P	0.021	0.016	0.017	0.019	0.015	0.020	0.012
S	0.002	0.0001	0.002	0.001	0.002	0.002	0.002
Fe	bal.	bal.	bal.	bal.	bal.	bal.	bal.
GS	n/a	6	7	7.5	3.5	6	8

Alloy C1 was the Custom 450 alloy commercially available from Carpenter. Notably, while alloy C1 had a composition within the limits published for the Custom 450 alloy (e.g., Nb/C ratio: 8xC minimum), its Nb/C ratio exceeded that set for the Custom 450

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alloy in U.S. Patent No. 3,574,601 (Nb/C ratio: 10xC maximum). The alloy also had ~~was determined to have~~ a low carbon content, a high Nb/C ratio, and a high phosphorus content relative to the limits for the alloy of this invention set forth in Table I. Alloy C2 had a fine grain size, the lowest Nb/C ratio and lowest nitrogen content. At the other extreme, alloy C5 had the largest grain size, the highest Nb/C ratio (including a carbon content below that allowed in Table 1) and the highest nitrogen content, each of which was outside the limits allowed in Tables 1 and 2. Similar to alloy C2, alloys C3 and C4 also had fine grain sizes, but Nb/C ratios and nitrogen contents intermediate that of alloys C2 and C5. Alloys C6 and C7 also had fine grain sizes and low nitrogen contents, but Alloy C7 had a Nb/C ratio close to that of C2 while Alloy C6 had a Nb/C ratio (resulting from a carbon content below that allowed in Table 1) that exceeded the upper limit in Table 1. In summary, all of the alloys had carbon contents and Nb/C ratios within the published limits for the commercial Custom 450 alloy, though alloys C1 (Custom 450), C5 and C6 had Nb/C ratios, alloy C1 had a phosphorous content, and alloy C5 had a nitrogen content that were outside the ranges specified for the alloy of this invention, ~~they were within the accepted ranges for the Custom 450 alloy as disclosed in U.S. Patent No. 3,574,601.~~